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MEASUREMENT OF HOSPITAL PERFORMANCE AND IMPLICATIONS FOR ACCCOUNTING

H. David Sherman

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INSTITUTE OF TECHNOLOGY
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Abstract

Do for profit hospitals (FPs) perform better than non profit hospitals (NPs) and will continued growth of FPs help contain the alarming increases in U.S. health care costs? Three hospital performance dimensions that need to be considered to address these questions are identified: quality of care, cost of care, and pricing. Existing studies provide ambiguous and conflicting evidence about relative hospital performance partly due to inadequate output mix and volume data and partly due to incomplete and non-comparable accoutning data. A research design is proposed to provide more definitive conclusions about the relative performance of FPs vs. NPs. Specific changes in hospital accounting methods disclosures are also proposed to make accounting data useful in managing and containing health care costs.

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1. INTRODUCTION

Rising health care costs and the increased presence of for-profit health service organizations have motivated frequent comparisons of for-profit (FP) and non-profit (NP) hospitals. Does the profit motive result in better managed, more efficient, lower cost hospital services of comparable quality to those offered by the more altruistic non-profit hospitals? Alternatively, do the for-profit hospitals sacrifice quality to achieve profit and return on investment objectives? FPs have performed well from an investor perspective (Frost and Sullivan, 1982), (Sandomir, 1981). FPs continue to be highly recommeded investments by security analysts in spite of increased competition and rate regulation (Hull, 1985). Can NPs improve their performance by adopting management practices of the FPs? Are the tax advantages and government subsidies to NPs warranted?

These issues concern Federal and State governments, which regulate aspects of health care and which fund the cost of Medicare services to the elderly and Medicaid services to the poor. Legislators must periodically reconsider whether tax subsidies provided to NPs are well placed, or whether these advantages should also be made available for FPs. Employers and insurers have also expressed great concern about rising medical costs. For example, Chrysler Corporation reported that its health insurance costs were $6,000 per employee in 1983, which was double the 1979 cost (Rosenbaum, 1984).

While FPs account for only about 10% of all U.S. hospital beds, they own more than 20% of the hospital beds in the high growth Sunbelt region of the U.S. Moreover, the FP growth in number of beds was 64% compared with 17% growth for NPs during 1970's (American Hospital Association, 1982). This remarkable disparity has spurred much controversy about whether the increased presence of FPs will provide a way to contain hospital costs

and/or whether they will compromise health care quality. While this controversy is debated in numerous articles, e.g. (Altman, 1984) (Dolnick, 1984) and (Siafaca, 1981). Two notable recent examples of this confrontation have attracted considerable public attention. First, many editorials questioned the propriety of Humana Corporation's (a FP hospital chain) sponsoring of a vigorous artificial heart implantation program in its Louisville teaching hospital (Altman, 1984). Second the sale of Harvard University's teaching psychiatric hospital, McLeans, to the largest FP chain, Hospital Corporation of American (HCA) failed due to the opposition by health care professional at the institution.

Interest in comparing performance and relative costs of hospitals naturally raises accounting questions about measurement of costs. Are they consistent, reliable, verifiable, and relevant for the purpose intended? Much of the cost data available to compare hospitals is derived from the accounting information systems used to prepare external financial statements. While these questions are present in comparing organizations within any industry, hospital financial statements are complicated by the need to compare for-profit and non-profit institutions that have differing sets of accounting methods and disclosure requirements. The FPs follow generally accepted accounting principles for business enterprises and in many cases are required to follow S.E.C. reporting standards as well. NPs use fund accounting and are guided by accounting principles for hospitals

(AICPA, 1972) or accounting policies for governments which own them (AICPA, 1972 and 1974).[1]

Differing reporting standards among hospitals need to be reconciled before meaningful comparisons can be made. To what extent do these differences hinder the comparison of hospital performance? What changes in reporting requirements are needed? These issues will be addressed in this paper as follows:

Section II will posit a model of the relevant dimensions of hospital performance and consider the extent to which these dimensions are dependent on accounting measurements and disclosures. Section III will briefly describe the progress to date in comparing FPs and NPs, and the methodological problems and limitations encountered. Section IV will suggest a research design to more fruitfully investigate the relative performance of hospitals. The concluding section recommends a set of revisions to current hospital accounting and reporting standards that would facilitate the comparability for data of all types of hospitals.

II. DIMENSIONS OF HOSPITAL PERFORMANCE

Three key dimensions of performance derive from the current concerns about hospital operations: 1) quality of health care, 2) efficiency and cost of services, and 3) price of services. All three dimensions need to be considered in comparing the performance of hospitals and each dimension presents complex measurement problems. Many of these problems clearly fall

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[1] Generally, municipal hospitals follow the Hospital Audit Guide (AICPA, 1982) but due to the separation of certain costs allowed under municipal accounting, the municipal hospital may have cost disclosures that are inconsistent or incomplete compared with private NPs. For example, hospital employee pensions and other fringe benefit costs may be accounted for in municipal trust funds rather than in the hospital enterprise fund and some hospital management costs have been found to appear outside of the municipal hospital statement in other fund categories.

within the accounting disciplines, others are primarily addressed by health care professionals (physicians, nurses, and public health specialists), and many can benefit from interdisciplinary cooperation.

A. Quality of Health Care

Quality of care, the most judgmental dimension resides almost entirely in the health care professionals' disciplines. The concern of accountants and financial managers are due to the economic consequences of medical decisions.

Quality of care can be segmented into a) the effectiveness of the diagnoses and treatment and b) the patient's satisfaction. Diagnosis and treatment quality depends on the professional capabilities of the physicians, nurses and lab technicians, as well as available technologies. Licensing and accreditation standards assure that most hospitals meet some minimum quality standard in terms of the capabilities of the professionals, and available diagnostic and treatment facilities. This minimum standard is not adequate to evaluate hospitals, since there are wide ranges of quality above this minimum. The key problem is that any two equally respected physicians will not necessarily agree on and prescribe the same diagnostic tests and treatment for any one particular patient. Hence two very different sets of treatments may both be considered to be of equal quality. Attempts have recently been made to standardize treatments, but there are clear limitations to their ultimate success. For example, surgical procedures for a variety of frequently performed surgical operations, e.g. eye cataract and open heart surgery, have been standardized with some success such that the required procedures and resource needs can be predetermined within a moderate degree of variation based on physician judgment. In contrast, the treatment of an illness that does not require surgery, such as treatment of arthritis and cancer are much more difficult

to gain professional agreement on the timing, procedures, and intensity of each type of care required, and standardization is not as likely to be possible in the near future. Hence this dimension of quality is difficult to measure. The cost of providing similar quality of care may differ because of differences in physician judgments and differences in the technologies used. Higher quality may be more costly if this means using more advanced technology for diagnosing and treating a patient illness or using more intensive care to treat a patient.

Another facet of diagnosis and treatment quality is the attainment of some established standard -- are prescribed tests performed accurately and effectively the first time? If not, correcting errors can be more costly. This aspect of quality is more directly controllable with licensing and establishment of standard operating procedures within the hospital. Note that two facets of diagnosis and treatment quality have been identified here. Increases in quality raises cost in the former case and reduces cost in the latter case.

An entirely different dimension of hospital quality relates to patient satisfaction. Does the food taste good? Is the environment aesthetically pleasing? How rapidly do nurses respond to a patient's call? Are the hospital personnel polite and supportive? These aspects of quality focus on hospitals' hotel functions, as distinct from their provision of medical care. This dimension of quality also impacts costs and needs to be evaluated in completing an assessment of hospital quality.

The complexity of the quality dimension of performance is manifest by 1) the lack of any available ranking of hospitals by quality, 2) the lack of any generally accepted measure of quality, except for the minimum standards for accreditation which only identifies particularly low quality institutions, and 3) the use of weak surrogates such as mortality rates,

malpractice suits, and accreditation in hospital studies.

From an accounting perspective, the issue is the extent to which cost, efficiency, and fee differences among hospitals are due to quality differences?

B. Cost and Efficiency

Efficiency can be segmented into four distinct components, each of which impacts cost.

1. Input price efficiency depends on the hospitals' ability to buy each input (good or service) at the lowest cost.

2. Allocative efficiency requires that the mix of inputs be adjusted to minimize cost. For example, a hospital may be paying the lowest possible salary for registered nurses (RNs) and licensed practical nurses (LPNs) and therefore be price efficient. At the same time it may be employing a higher RN to LPN ratio resulting in utilization of more higher priced RNs than are needed for the services provided. Allocative inefficiency results in higher cost due to the input mix.

3. Technical efficiency is the use of the minimum amount of each input to produce desired care. A technically inefficient hospital could provide the same services it provides with fewer inputs regardless of their relative price and consequently could reduce its operating costs. Technically efficient hospitals would be operating on the efficient production frontier and may at the same time be inefficient with respect to price, allocative, and scale dimensions. This dimension of efficiency is difficult to measure because the efficient production frontier is not well defined for hospitals, largely because of the professional judgment associated with prescribing the tests and treatments required for a particular

patient illness. (See for example (Sherman, 1984).

4. Scale efficiency requires that the volume of each activity of the hospital be at an optimal level, i.e., the level at which an increase or decrease in volume would result in higher cost per service unit. This elementary economic concept is difficult to apply to hospitals, since there are numerous services provided. While much research has focused on determining the optimal number of beds, any hospital that has achieved an optimal bed size may also be scale inefficient on other dimensions, e.g. services like open heart surgery and outpatient care may be provided at a suboptimal volume level.

All of these efficiency dimensions can be addressed through accounting disciplines. Indeed, controllers, financial managers, and directors of hospitals have been responsible for making decisions that impact efficiency, e.g. size of hospital, mix of personnel, and wage rates. There is an increasing awareness of the need to include health care professionals in these decisions, but progress has been slow. For example, the physician can generate technical inefficiencies by ordering excessive tests and keeping patients in the hospital beyond the minimum time needed. This may result from a physician's desire for added protection against malpractice claims. Recent pressures on hospitals resulting from changes from a cost reimbursement to a fixed fee hospital payment for each diagnosis treated under Medicare have motivated more cooperation between financial managers and health care professionals. The results of such efforts are only beginning to have an impact on efficiency and cost.

Underlying any consideration of cost and efficiency is the issue of how to measure volume of output. Ultimately some cost per adjusted unit of service measure is needed to fairly compare hospitals. Such a measure must

fairly reflect resource intensity of the unit of care e.g. a higher cost per day of care could be due to either inefficient treatment or more complex patient illnesses requiring greater resource utilization.

The case mix and mix of other services provided by each hospital needs to be explicitly considered before conclusions about relative cost and efficiency can be developed. The need to measure output mix, which is basic to cost accounting, is only now being seriously addressed in the hospital industry. This proves to be an acute problem in comparing hospitals due to the difficulty encountered in categorizing patient diagnoses by their resource needs and the limited availability of appropriate output mix data.

C. Pricing

Pricing is distinct from cost because it directly impacts payors, regardless of the cost structure of the hospital. There are two dimensions of pricing that require attention in hospital assessment. First, hospitals may take different markups over cost. There is evidence to suggest that FPs selectively set fees with higher margins (Lewin, et al., 1982). The nature of health care services allows hospitals in the same market area to have different fees for identical services because the purchase decision is generally controlled by physicians. Doctors have little incentive to be price sensitive -- they tend to select hospitals for other reasons such as quality, location, and availability of beds.

In the hospital industry, fees earned are distinct from the formal fee schedules and depend on the payor and the nature of the fee arrangement. For example, most private insurers and self-pay patients pay the full fee; Blue Cross and Medicaid generally pay a lower fee; and Medicare now generally pays a fixed fee established without regard to hospitals' fee schedules. These discounts are generally referred to as contractual adjustments. In addition to contractual adjustments and bad debt losses,

many hospitals provide varying amounts of free care which also impact net fees earned. Hence a hospital which appears to have a higher fee schedule may actually be charging less for its services if they provide a large volume of free care. Consequently, a fair comparison of hospital fees requires that the payor mix as well case mix be considered.

III. COMPARING THE PERFORMANCE OF FP AND NP HOSPITALS

A. Research Findings

While there is concern that quality of care may be sacrificed to enhance profits, studies of FP vs. NP hospitals have not found ascertainable quality differences. Quality has been measured by: accreditation (Steinwald and Neuhauser, 1970), incidence of malpractice claims, possession of high prestige technology, existence of suspect practices (Clark, 1980), and death rates (Bays, 1977). It has also been suggested that FPs share greater access to equity capital markets, thereby allowing them to finance the purchase of state-of-the-art equipment to promote quality by attracting physicians and increasing the types of care available (Frost and Sullivan, 1982), (Riffer, 1981). FPs and NPs both need to maintain high quality levels that satisfy physicians or risk losing patients. There is no current evidence that ownership type or corporate control can induce physicians to compromise quality (J. Harris,) (Sherman and Chilingerian, 1983). The dimensions of heatlh care quality are much broader than those tested in these studies, i.e. the surrogates for quality do not capture the complexity of the diagnosis, treatment and patient satisfaction dimensions discussed in part II. (Also see, for example, (Steinwald and Neuhauser, 1970), (Dumbaugh, 1978), and (Donabedian, 1978). However, unless new definitions of quality are more rigorous, compehensive, measurable, and widely accepted than those noted above, it would be difficult to advance beyond the results of existing studies. To ascertain whether cost and pricing differences

betwen FPs and NPs are primarily due to differences in quality, accounting researchers must await further development in the health care disciplines.

Cost and efficiency studies of FPs vs. NPs have most frequently addressed the dollar cost aspect of hospital care, mirroring the concern for rising costs. Such studies have been less concerned with comparisons of the dimensions of operating efficiency described above. Research findings about FP vs. NP. cost differentials are inconclusive because of basic methodological and data problems. In addition, they provide conflicting evidence about relative hospital costs. Several studies found that NPs had lower cost per day than FPs (Clark, 1980), (Berry, 1974), (Lewin et al., 1982), (Pattison and Lutz, 1983) and (Ruchlin et al., 1973). Sloan and Vraciu, (1983) find FPs and NPs have similar costs per day but that FP chains have lower cost per day than independent NP and FPs. Studies measuring the cost per admission also yielded conflicting results: FPs' cost per admission were below NPs (Clark, 1980), approximately the same (Sloan and Vraciu, 1982), (Bays, 1979) and above NPs' (Lewin et al., 1982) (Pattison and Katz, 1983). In addition, studies that have segregated chain from independent hospitals (Sloan and Vraciu, 1982) (Bays, 1979) have found that FP chain cost per admission were lower than in NPs'; while (Coyne, 1982) found the opposite. One possible source of conflicting conclusions is that these studies do not all examine the same hospitals during the same time period. However, this would not account for all the differences.

Four basic problems weaken hospital cost studies. First, they do not fully adjust for cost differences due to the NPs' cost advantages arising from its legal status. These advantages include lower interest rates paid on tax exempt debt, the exemption from income and property taxes, the availability of tax deductible donations for capital and operating expenditures, and the value of donated services. Second, the price level

effects on depreciation and borrowing costs associated with the timing of capital asset purchases and lease contracts have not been considered. Third, the length of time that a FP chain owns a new hospital and its effect on hospitals cost have been ignored in most studies. Becker and Sloan (1984) found that when chain FPs acquire less efficient FP or NP hospitals, their costs decreased with the amount of time the hospital has been part of the chain. Finally, the case mix is not explicitly considered. Most studies use the number of services offered as a case mix surrogate. Only in Bays, (1979) and Berry, (1974) are case mix severity indices developed to control for output mix. Correcting for the cost differences due to interest and tax subsidies, and price level effects would have been difficult but possible. Case mix data is only now becoming available on a limited basis. As case mix data becomes increasingly available, more fruitful and definitive research on hospital costs will be possible.

Differences in price, scale, technical and allocative efficiency between FPs vs. NPs have only begun to be addressed in the literature. Such studies are significant for identifying the types of management techniques that are associated with these cost differences.

Studies that used operating ratios to measure efficiency have found that FPs are more efficient . For example, Lewin et al. (1982) found full-time equivalents of personnel per patient to be lower in FPs, suggesting more efficient scheduling and job allocation. They also found that FPs utilized lower fixed assets per patient day. Coyne (1982) found FPs have greater admissions per bed, but that personnel utilizations are not significantly different among hospital types (FPs vs. NPs, and chains vs. independents).

These studies failed to make specific case mix adjustments. Moreover, they provide little insight into the nature of operating differences that may exist and whether such differences are really due to the management

practices in the NP vs. FP environment. One exception to this is Wilson and Jadlow's study (1982) on nuclear medicine, which found the FPs to be more efficient in resource utilization than NPs. Sherman and Chilingerian (1983) examined hospital utilization of a set of "good management techniques." They found that FPs made greater use of shared services, bidding procedures for purchasing, demand forecasting and other basic business management techniques. Decisionmaking by health care professionals did not appear to differ, but the study is not sensitive enough to conclude on this key issue.

Researchers have questioned whether FPs charge more for services, regardless of whether the services are more costly. There appears to be evidence that FPs apply higher markups than NPs (Lewin et al., 1982). However, whether FPs have higher fees depends on their relative costs, i.e., if FPs have lower costs and higher markups, they may still have lower fees. FPs were found to have higher charges per day (Lewin, 1982), (Sloan and Vraciu, 1983) (Pattison and Katz, 1983), but charges per admission were found to be lower in chain FPs, with no difference between independent FPs and NPs (Sloan and Vraciu, 1983). The lack of adjustment for case mix and payor mix further complicates the inconsistent findings of these studies. The payor mix affects charges, since various payors contract to pay for services at rates below hospitals' standard fee schedules. There is some evidence that FPs practice cream skimming e.g. by locating their hospitals and offering a select set of services to attract a patient case mix and payor mix that will maximize profits (Bays, 1977), (Ruchlin et al., 1973) (Sloan and Vraciu, 1983). This, however, has been denied by some FPs (see, for example (Brown, 1981)). These mix factors are not controlled for in the above studies and, consequently, a definitive answer about relative fees is unavailable.

There is a great need to rely heavily on accounting data as well as

other data not included in the financial statements. While researchers have tried to correct for data inconsistencies and unavailability of data, the studies have generally not been completed by accounting researchers. Consequently, accounting and disclosure issues have not been a focus of their analysis. Partly due to data problems, studies to date have not produced firm conclusions about the relative costs, fees, and operating efficiences of FPs vs. NPs. This suggests that the public debate about the relative merits of FPs vs. NPs and their impact on health care costs are primarily based on emotional and qualitative judgements rather than conclusive actionable research .

B. Suggestions for Improvement

The limitations in existing studies and the increasing need to understand the role and impact of FPs in the health care industry both suggest the need for improved research.

The following suggestions are offered to improve research intended to measure the relative performance of hospitals.

1. The segregation of hospital types should acknowledge the chain/affiliate versus non-chain independent hospital. In addition, an increasing number of NPs are being managed under contract by FPs. While these FP-managed hospitals are currently less than 5% of the U.S. hospitals, this represents a distinct growing segment that should be segregated from FPs and NPs in future studies.

2. Case mix and payor mix adjusted output data are needed for hospital comparisons. Case mix measures of the entire patient load of a hospital are needed to measure and compare the outputs and costs of services of hospitals. The data currently being developed for Medicare patients (over 65 years old) using the Diagnosis Related

Group (DRG) patient categories account for only a part of the patient load. In addition, DRG classifications of patients are not highly sensitive to the resource needs of these patient types. While these are the best available data, their limitations need be addressed to achieve valid hospital comparisons. Ideally a measure of patient case mix more sensitive to resource need would be developed for all types and ages of patients. In addition to inpatient care, measures of outpatient visit volume and mix are needed. Outpatients volume are essentially ignored in studies to date; however, current developments are motivating an increased use of outpatient facilities making this an increasingly important output. Additional hospital outputs that need to be considered include health education programs, training of nurses, and training of medical students, interns and residents.

3. Cost data will always be subject to variations among different accounting and cost allocation systems. Most studies have implicitly assumed that such problems are immaterial, this may become an issue requiring more careful attention as the nature of hospitals, Health Maintenance Organizations, and free standing clinics continue to evolve and the formal associations among these health care providers increase. This raises questions about the boundary of the entity being evaluated and the comparability of costs among hybrid institutions. The specific cost identification problems which require adjustment in future studies include:

   a. Inflation and specific price level adjustment: To the extent that asset purchases and leases are contracted for in different time periods, adjustments are needed.

b. Lower interest rates associated with NP tax exempt debt financing.

c. Property and income taxes waived for NPs.

d. Tax deductible donations and services donated to NPs. These contributions are unlikely to be evenly distributed among all NPs.

e. When revenue measures are used to focus on fees for health services, the mix of payors and the different proportion of reimbursement from payors such as Medicare and Medicaid need to be considered.

f. FPs can remunerate management with non-cash benefits such as stock options and stock purchase plans, which allows employees to buy common shares at a discount. These benefits understate the true to FP salary costs.

After the above adjustments are made, research may conclude that NPs <u>are</u> less efficient and that government subsidies in the form of tax advantages are no longer justifiable because they are really promoting the survivial of inefficient hospitals. Alternatively, NPs may be found to be as efficient as FPs, but that they provide valuable services such as teaching, community education, and free care not offered by FPs resulting in higher cost structures. NPs may even be more able than FPs to influence health care professionals to modify their behavior in creative ways to reduce health care costs, because they seek to help the community rather than improve the bottom line. Without studies based on more complete data described above,

answers to these public policy issues cannot be objectively ascertained.

IV. IMPLICATIONS FOR ACCOUNTING

The data needed for more conclusive studies of FP versus NP performance go beyond those available and would require cooperation of both sets of institutions. Accounting methods and disclosure requirements have differed between FPs and NPs which contribute to the difficulty of such comparisons. In addition, expanded disclosure requirements for all hospitals could provide the basis to understand better the cost of care in NPs vs. FPs.

More consistent and expanded disclosure requirements for NPs and FPs are recommended below to make their financial statements more useful in analyzing the relative costs and fees.

1. Output Mix Data: Output volume, case mix and payor mix data should be provided in a form that will allow users to adjust revenue and expense data for volume and case mix. Standardized volume and case mix disclosures are needed to understand relative hospital costs. One example of the kind of disclosure requirement that would address the output mix problem is as follows: Hospitals would annually include a supplementary schedule of number of patient days (or patients) treated in each DRG category. A summary patient severity index would accompany this table which would be calculated by weighting each DRG by relative costs used by insurers such as Medicare or some other generally accepted set of weights that reasonably measure relative DRG costs. The table would enable users to apply other measures of resource intensity that may be more sensitive than relative dollar costs. While DRGs have many well-documented flaws, they are likely to be the most widely available case mix measure and would be the most pragmatic choice until they are replaced by more sensitive measures of case mix.

2. Price Level Data: Price level adjusted financial statement disclosure s following along the lines of the Statement of Financial Accounting Standard No. 33 of the Financial Accounting Standards Board are needed to distinguish trends in operating costs which differ from the underlying impact of inflation. Specific price level adjustments would be preferable to a general Consumer Price Index, , since the specific price levels by cost type may differ substantially. Such current cost data would provide a more meaningful basis to adjust and compare depreciation costs. The American Hospital Association already supports the use of current cost data, albeit for other reasons.

3. Disclosures of the Impact of Restricted Funds and Donations on NP Operations: A key unknown issue is the extent to which the donated funds and services result in operating costs that would or would not be incurred if these donations were absent. Management of NPs should be asked to estimate and disclose the impact of these donations on operating costs.

4. Disclosure of the Impact of Waived Property Taxes, Income Taxes and Tax-free Debt on Operations: The difference in tax free vs. corporate debt rates and the amount of waived property and income tax should be estimated and disclosed to provide a basis for estimating the cost subsidy provided to NPs.

5. Line of Business Disclosure: Hospital revenues and operating costs are currently reported as one line of business. In actuality, multiple activitie s are encompased. Notably, there is inpatient vs. outpatient care. Corporate segment reporting concepts could be applied to all hospitals to require separate reporting on each relevant segment. This should at least segregate outpatient, inpatient, teaching, and research

activities. The volume and case mix for each line of business should also be provided for reasons discussed in 1. Such disclosure would be much more detailed than corporate line of business data because the latter tends to incorporate a wider group of activities, products and/or services in each segment category than is proposed here for hospitals. For example, all hopsitals owned by chain FPs are reported as one line of business. This proposal would require further segregation of these activities.

6. Management Discussion and Analysis: The S.E.C. corporate reporting standards require the management discussion and analysis to help readers segregate price increases from volume changes, understand changes in operating cost levels, understand impact of inflation and assess the organization's short- and long-term liquidity pressures. Similar disclosures are needed for hospitals to make a comparison more meaningful.

7. Government-owned Hospital Reporting - Hospital reporting requirements should explicitly include government non-profit hospitals. Close cooperation between the Financial Accounting Standards Board and the Government Accounting Standards Board is required to assure reporting consistency accross all non-profit and for profit hospitals.

The disclosures proposed above are largely extensions of reporting standards now required of large publicly held corporations. One notable exception is disclosure of outpatient volume and mix data. Added disclosures of this nature raise questions about fairness to the accountor i.e., the hospital. Ijiri (1982) notes that fairness is a key concern because the disclosure may damage the accountor vis-a-vis its competitors. At the same time, the need for output disclosure is explicitly acknowledged in the accounting literature for non-profit organizations (Financial

Accounting Standards Board, 1981, paragraphs 51-53). In the case of hospitals, the volume and mix of outputs are so basic to the operation that excluding these data severely constrict the usefulness of the financial statements in answering questions about relative costs and performance. The issue that must be addressed is whether the potential benefit to the public, i.e. greater insights into ways to contain and manage health care costs will exceed the costs of added disclosure and competitive responses to these data.

The accounting community has historically been one of follower rather than leader in making breakthroughs on issues of health care cost management. Expanded and more consistent financial statement disclosures such as those proposed herein would help resolve many of the ambiguities found in existing studies about relative performance of hospitals with respect to the cost, efficiency and fee dimensions. Such reporting changes would begin to move accounting into a leadership role in dealing with the management of health care costs.

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